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(54) **MAGNESIUM ANODE, SEAWATER/ACID/ CATHOLYTE ELECTROLYTE UTILIZING A PALLADIUM AND IRIDIUM CARBON PAPER CATHODE ELECTROCHEMICAL SYSTEM**

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(52) **U.S. Cl.** **429/105**; 429/101

(58) **Field of Search** **429/101, 105**

(56) **References Cited**

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(57) **ABSTRACT**

The present invention relates to an improved magnesium semi-fuel cell which has a magnesium anode, a seawater/ catholyte electrolyte, preferably containing acid to solubilize solid precipitates, and an electrocatalyst composed of palladium and iridium catalyzed onto carbon paper. The acid added to the electrolyte is preferably selected from the group consisting of sulfuric acid, hydrochloric acid, phosphoric acid, acetic acid, and mixtures thereof.

7 Claims, 2 Drawing Sheets